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ADVISORY COUNCIL

SUBCOMMITTEE ON MANUAL OF PROCEDURES

Wednesday
April 20, 1978
10:00 P.M.

939 Ellis Street
San Francisco
California 94109

M I N U T E S

COMMITTEE MEMBERS PRESENT: Lowell V. Smith, Chairperson; Shirley J. Campbell, Joseph D. Coons, Hiram Wolch.

COMMITTEE MEMBERS ABSENT: John L. Nicholson.

STAFF MEMBERS PRESENT: Gary Bisonett, Dario Levaggi, Edward W. McHugh, Meg Sanders.

- - -

Chairperson Smith called the meeting to order at 10:10 A.M.

APPROVAL OF MINUTES OF MARCH 29, 1978

Mrs. Campbell requested the following corrections:

Page 2, LAB 17, 3.2.1 - to read, "For methane, a 6 ft. 1/8" Chromosorb 102, 80/100..."

3.2.2 - to read, "For propane, a 6 ft. 1/8" Chromosorb 102, 80/100..."

3.5 - to read, "...The tubing is usually able to withstand..."

Page 3, LAB 17, 6.1 - sentence 3 to read, "Obtain the average peak height for each standard (individual peak heights should not vary by more than ± 5% of the mean).

Page 4, LAB 21, 3.1 - line 2, to read, "...this procedure if..."

Page 5, LAB 21, 4.5 - line 2, to read, "(W/W) of the Distillate"

Dr. Wolch moved that the minutes be approved as corrected; seconded by Mrs. Campbell; carried.

The following report was presented, Corrections to Volume IV of Manual of Procedures, dated 4/13/78. Mr. Levaggi informed the Subcommittee that after each meeting they will be receiving additional second drafts of the corrections to the Manual of Procedures.

J.G. Hayes
BALIA
San Mateo

On inquiry from Mr. Hayes, regarding the cooling temperatures for samples taken as indicated in Lab 13, as discussed at the previous meeting of the Subcommittee, Mr. Levaggi replied that the temperatures do not vary that much from the ASTM procedure, and that District procedures would be changed to conform with ASTM.

REVIEW OF GRAB SAMPLING PROCEDURES ST- 8, 12

Mr. Levaggi stated that the Introduction to these Lab Procedures would be addressed at a later meeting.

ST - 12 - Collection of Odorous Samples. Mr. Bisonett described the procedure and made the following corrections:

4.1 - to read,"...critical orifice in the dilution probe.

5. - delete "(Figure 1)"

5.1 - to read, "Dilution Probe - The dilution probe is constructed as shown in Figure 1."

5.1.1-to read, "...glass or type 316 stainless steel."

5.2 - to read, "Use a Teflon-lined diaphragm pump, or equivalent, capable of at least 1.5 cfh at..."

5.4 - to read, "Dry/Deodorizer - Use three glass cartridges... ...The first contains Drierite; the others contain activated carbon."

6.1 - delete, "Assembly"
change "Figure 1" to "Figure 2".

6.2 - delete "Leak Test"
line 2, to read, "inlets; insure that the flow out of the pump falls to zero."

The Committee discussed the procedure and made the following corrections:

6.3 - Delete "Purge - Start the pump and"
line 1 to read, "Purge the stack gas through"

8.2 - to read, "...returned and evaluated within three hours according to Section 8-210 of Regulation 8."

Mr. Levaggi said that Section 8-210 of Regulation 8 should also be addressed in the Manual of Procedures and that the Staff would prepare a test procedure for it to be added to the Lab Procedures.

Margaret Albertson
Air Quality Laboratory
Chemecology Corporation
Concord

Inquired as to the procedure as specified in Section 8-210 of Regulation 9 regarding panel observations, Mr. Levaggi responding that the panels are selected from staff personnel.

ST-8 - Dimethylsulfide. Mr. Bisonett summarized the method and made the following corrections:

5.1 - is deleted

5.2 - change to 5.1

5.3 - change to 5.2

5.4 - change to 5.3

5.5 - change to 5.4

5.6 - change to 5.5

5.1 - to read, "Sampling Probe. Use a borosilicate glass tube fitted at..."

5.2 - to read, "Sample Bag. Use a Tedlar bag with a capacity of at least two stainless steel valves and at least a 10 liter capacity.

5.3 - to read, "Sample Pump. Use a leak-free Teflon-lined diaphragm pump, or equivalent capable of at least 1½ cfh.

5.4 - to read, "Sample lines. Teflon tubing..."

5.5 - to read, "...Use three glass cartridges fitted with ball joints. The first contains Drierite; the others..."

6.1 - lines 3, to read, "bag, until the discharge is clean. The Tedlar bag is considered clean when the lab detemines the DMS concentration to be undetectable."

6.2 - change to 6.3

insert 6.2 - Evacuate the Tedlar bag.

7.2 - to read, "For ambient sample, sample where the odor appears to be strongest."

The Subcommittee reviewed the procedure and made the following correction:

7.4 - line 2, to read, "the bag over a period of not less..."

REVIEW OF PROCEDURE FOR AUXILIARY TESTS ST-17, 18, 23, 24

ST-17 - Stack Gas Velocity and Volumetric Flow Rate. Mr. Levaggi and Mr. Bisonett reviewed the procedure and made the following corrections:

1.1 - line 2, to read, "and to quantify volumetric flow rate. It is applicable for use"

line 3, to read, "with any regulation of the BAAPCD..."

2.1 - line 4, to read, "molecular weight and moisture content are also measured. The volumetric flow rate"

2.1 - line 5, to read, ...of the duct geometry."

line 6, to read, "Velocity measurements should be made"

line 9, to read, "which are on radii of 90°."

3. - to read, "Range and Repeatability"

3.2 - to read, "The repeatability of the stack gas velocity method is ±7%.

5.1 - line 1, to read, "...Use a Stauscheibe (type-S), or equivalent, with a"

line 3, to read, "range. The pitot tube..."

5.2 - line 1, to read, "Differential Pressure Gauge. Use a..."

line 2, to read, "pressure gauge, or equivalent, capable of measuring the velocity head"

line 3, to read, "with ±5%."

5.3 - line 1, to read, "Temperature Gauge. Use a thermocouple,"

5.3 - line 2, to read, "...±1.5% of the stack absolute"

5.3 - line 3, to read, "temperature. (° R)"

5.4 - line 1, to read, "Barometer. Use a mercury, aneroid, or other barometer"

5.4 - line 2, to read, "capable of being read to within ±0.2 inches"

5.5 - line 1, to read, "Connections. All flexible tubing connections must be leak free."

6.1 - delete"Assembly -"

6.2 - delete "Leak Test - "

6.3 - delete "Traverse Points -"

- line 1, to read, "Determine the location of the traverse point according to Source Test"

6.4 - delete "Molecular Weight - "

6.4.1 - delete "(Source Test Procedure"

- to read, "...(ST-5)"

6.4.2 - to read, "...dry basis (ST-6)"

6.4.3 - to read, "...dry basis (ST-14)"

6.4.4 - to read, "vapor. (ST-23)"

8.1 - delete "Molecular Weight -"

8.2 - line 4, to read, "Δ P = Arithmetical average of square roots of the velocity heads in inches of water"

ST-18 - Stack Traverse Point Determination. In discussion, Mr. Levaggi stated testing during a disturbance should be addressed in the procedure and said he would present proposed wording at the next meeting as §3.5 and the present §3.5 would then be renumbered §3.6. The number of traverse points will also be addressed at the next meeting.

RECESSED: 12:00 P.M.
RECONVENED: 1:38 P.M.

ST-23 - Water Vapor. Mr. Bisonett described the procedure and made the following changes:

2.1 - line 3, to read, "cold condensers. The total condensate is weight."

- line 4, to read, "The residual water vapor is determined by calculation."

3. - to read, "Range and Repeatability"

4.1 - line 1, to read, "...the saturated gas temperature will cause a"

4.2 - delete

5. - delete "(Figure 1)"

5.1 - line 1, to read, "...either a borosilicate, glass or"

5.1 - line 2, to read, "...must be heated as necessary..."

5.2 - line 1, to read, "Condensers. Use three...as condensers."

- line 2, to read, "The third has a thermometer..."

5.4 - line 1, to read, "Sample pump. Use a leak-free..."

- line 2, to read, "flow rate at 10 inches of Hg vacuum.

5.5 - line 1, to read, "Dry Test Meter. Use a dry gas test meter...within ±2% of the true volume and"

5.6 - line 1, to read, "Connections. All flexible tubing connections must be leak free."

insert 5.7 - Barometer.

6.2 - delete "Assembly -"

- line 1 to read, "The sampling train is assembled as shown in."

- line 3, delete "(Figure 2)"

6.3 - delete "Leak Test -"

6.4 - delete "Dry Test Meter - "

- line 1, to read, "Record the initial meter reading before"

7.1 - line 2, to read, "approximately 0.5 CFM. Maintain..."

7.3.2 - to read, "Flow rate"

insert -.7.4 Record the barometric pressure.

8.2 - to read, "Clean, dry and weigh the impingers."

9.1 - to read, "Standard dry sample volume at 70°F, 29.92" Hg"

$$V_o = \frac{17.71\ P_b V_m}{t_m}$$

9.2 - line 11, insert ".074 = a constant standard condition"

The Subcommittee discussed the procedure and made the following corrections:

2.1 - line 2, to read, "rate. Moisture..."

3.1 - line 2, to read, "is 2% moisture by volume..."

6.4 - lines 1 and 2 to read, "Record the initial meter reading before sampling commences."

ST-24 - Tank Sampling for Orsat Analysis (CO, CO_2, O_2). Mr. Bisonett described the procedure and made the following corrections:

3. - to read,"Range"

3.1- line 2, to read, "0.2%"

3.2 - to read,"... is usable"

5.1 - line 1, to read, "Tank. Use a stainless steel..."

line 3, to read, "guage."

5.2 - line 1, to read, "Use a rotometer capable..."

5.3 - line 1, to read, "Desiccant Bed. Use Drierite,..."

5.3 - line 2,to read, "...to the tank volume is."

5.4 - to read, "Probe. The probe is..."

5.7 - to read, "Manometer. Use differential manometer with a range of -30 to +20 inches Hg."

The Subcommittee reviewed the procedure and made the following corrections:

2.1 - line 2, to read, "stainless steel tank. A desiccant..."

5.5 - to read, "Connections. All flexible tubing connections must be leak free."

5.6 - to read, "Purging Apparatus. Use a squeeze bulb with check valves to purge the sample lines with stack gases prior to sampling, as shown in Figure 1.

5.8 - to read, "Barometer."

6.1 - to read, "Prior to the field test, evacuate and seal the tank. If, after a period of not less than two hours, the vacuum gauge indicates a leak, do not use the tank."

6.2 - line 1, to read, "...record guage pressure,"

6.3 - line 1, to read, "...as shown in Figure 1."

7.1 - line 1, to read, "Sample at a constant rate slow..."

7.2 - line 1, to read, "For batch processes, sample at a..."

7.3 - to read, "When the tank is full, seal it for later..."

7.4 - to read, "Take three consecutive samples if feasible."

8.1 - line 3, to read, "of its contents and the barometric..."

8.2 - line 2, to read, "...Wait at least ten minutes before reading and recording the pressure."

10.2- to read, "Multiply by the factor determined in 10.1 the Orsat analytic results from Section 9."

ST-3 - Bulk Plants (500-20,000 GPD). Mr. Levaggi and Mr. Bisonett reviewed the procedure and made the following corrections:

1.2 - delete entirely

2.1 - line 5, to read, "(P-V) relief valve..."

5.1 - to read, "Combustible gas detector. Use a Johnson Williams Type SS-P, or equivalent."

5.2 - line 1, to read, "Dry test meter - Use a dry test meter which will operate at the valve leak"

- line 2, to read, "rate and is fitted..."

- line 3, to read, "...less than 0.1 inch H_2O.

5.3 - line 1, to read, "Hose. Use a 2" flexible tubing for all connections, sufficient..."

6. - to read, "Pre-Test Procedures"

6.1 - line 3, to read, "combustible gas detector at the..."

6.2 - to read, "Storage tanks. Check the P-V valve to insure proper operation.

6.2.1 - Delete.

6.2.2 - Delete.

Insert - 6.2.1 - Check piping at all joints.

Insert - 6.2.2 - Check the general storage tank area.

6.3 - to read, "Loading facilities."

6.3.1 - to read, "Check the transfer pump packing gland."

6.3.2 - to read, "Check the hoses and valves.

6.3.3 - to read, "Check the connection between the tank truck and the loading rack."

6.4 - (Mr. Levaggi said he would bring the correct wording for 6.4 at the next meeting.)

7.4 - to read, "During the transfer, check the inspection points in 6.2 and 6.3 with the combustible gas detector."

8.1 - line 8, to read, "V_M = meter volume, Ft.^{3}"

8.2 - line 5, to read, "V_L = liquid delivery volume, gal."

TIME AND PLACE OF NEXT MEETING

10:00 A.M., Thursday, May 4th, 1978, at 939 Ellis Street, San Francisco, California.

The meeting adjourned at 3:22 P.M.

Respectfully submitted,

Mabel Harder
Secretary

MH:js

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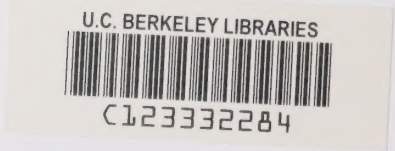

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